

FIG. 1

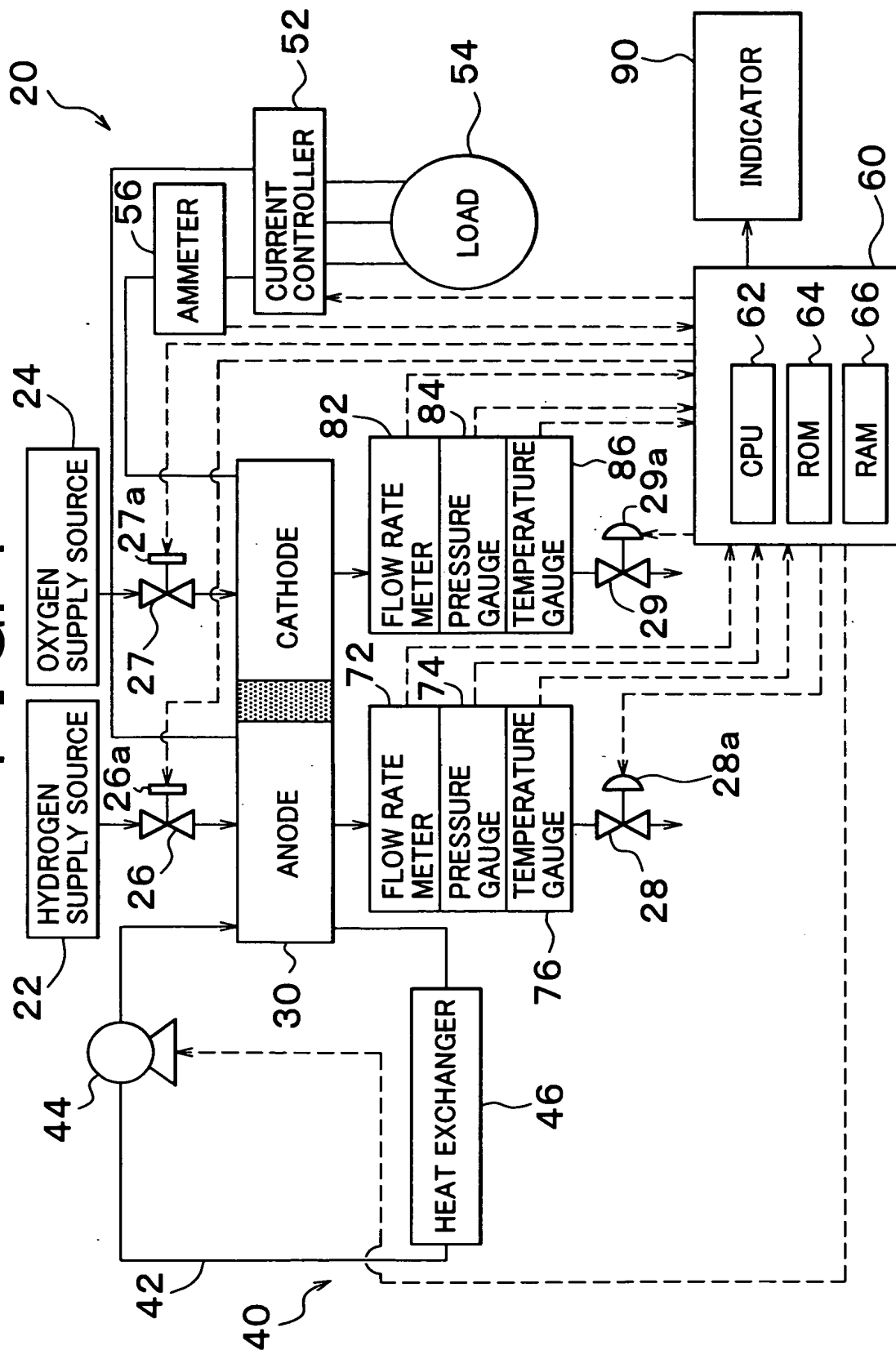
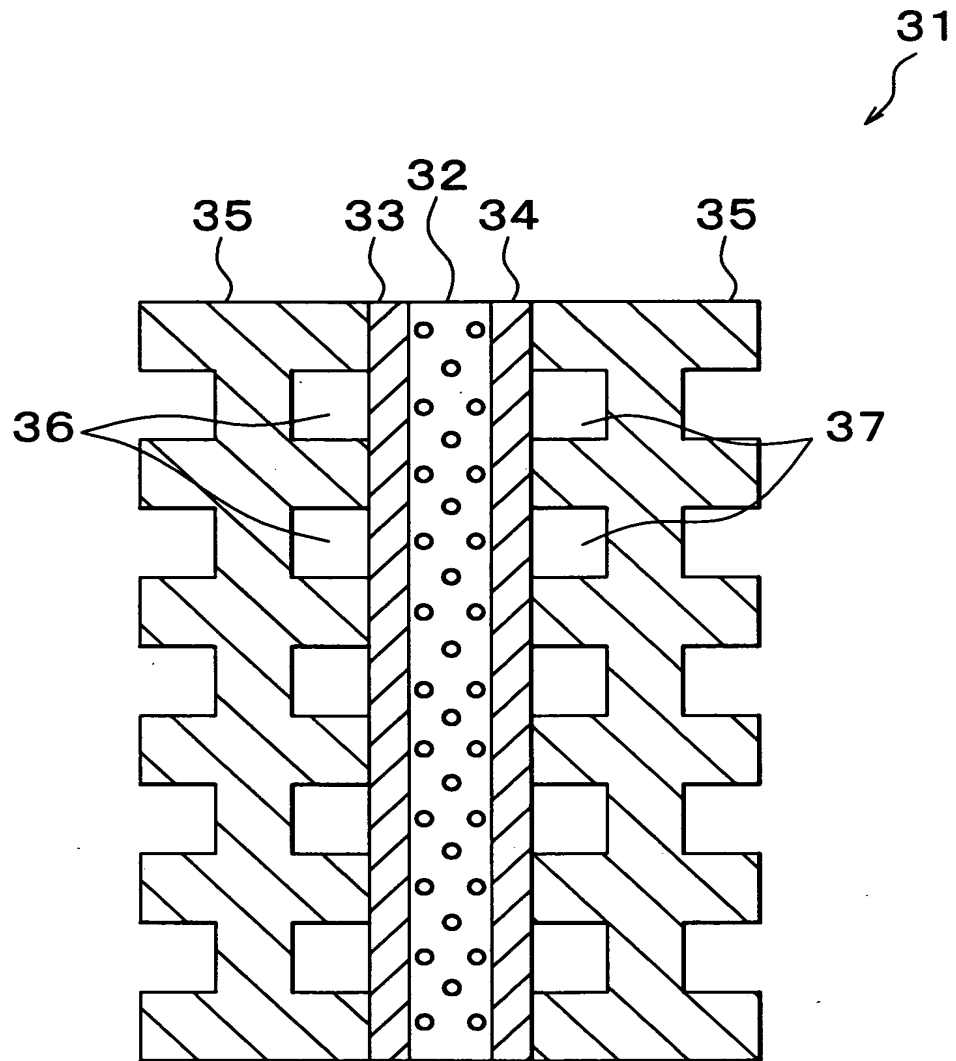


FIG. 2



## FIG. 3

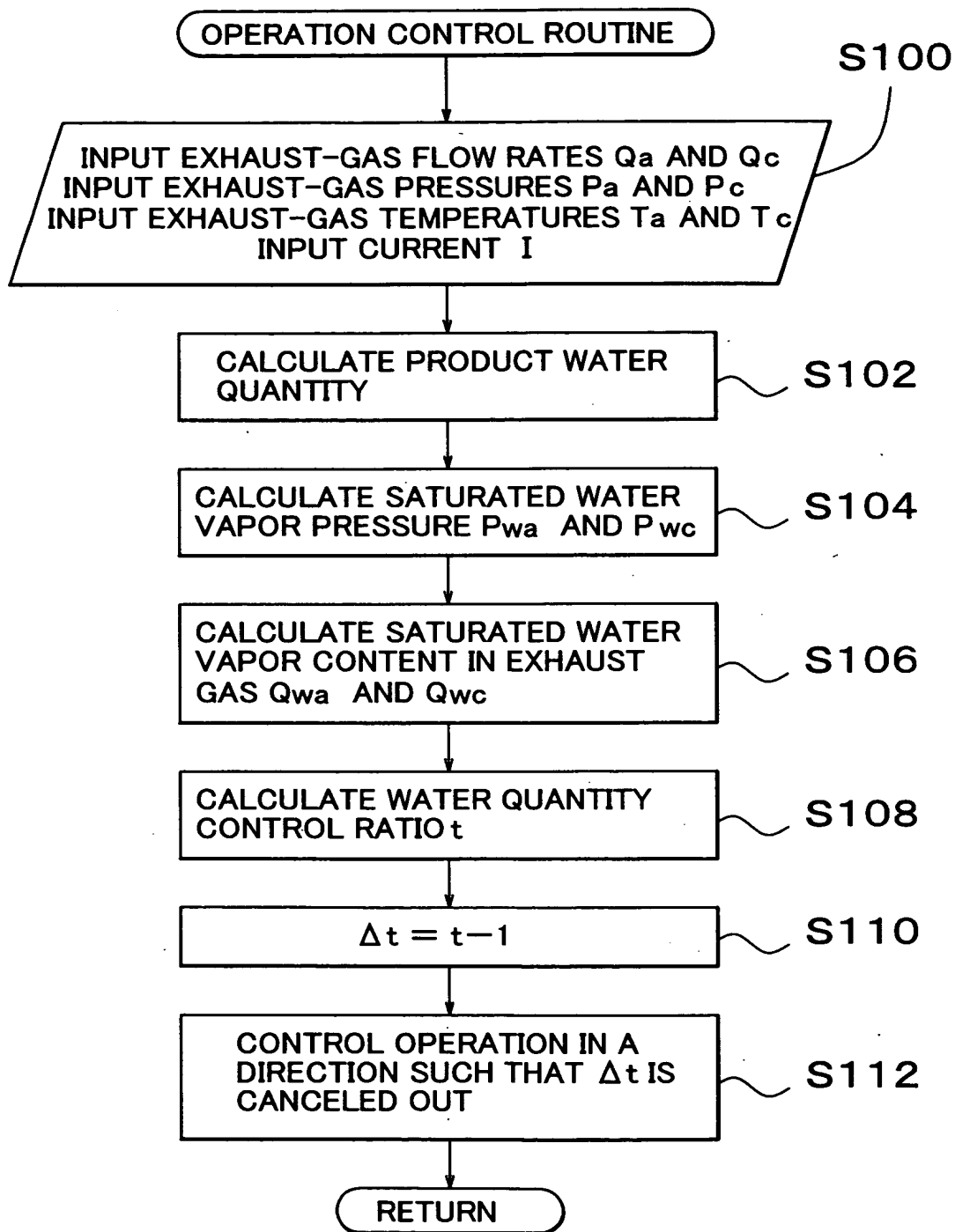


FIG. 4

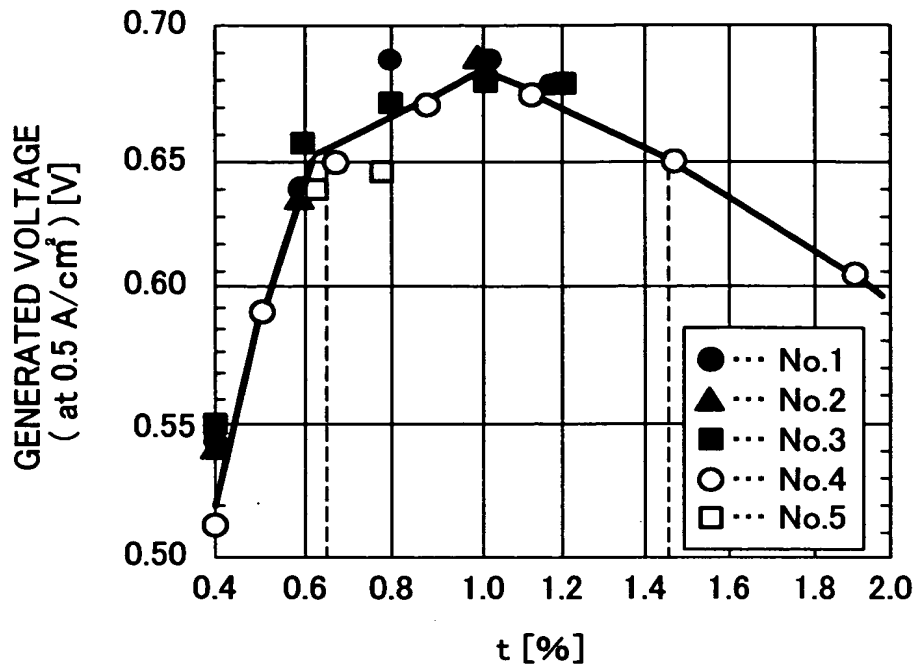


FIG. 5

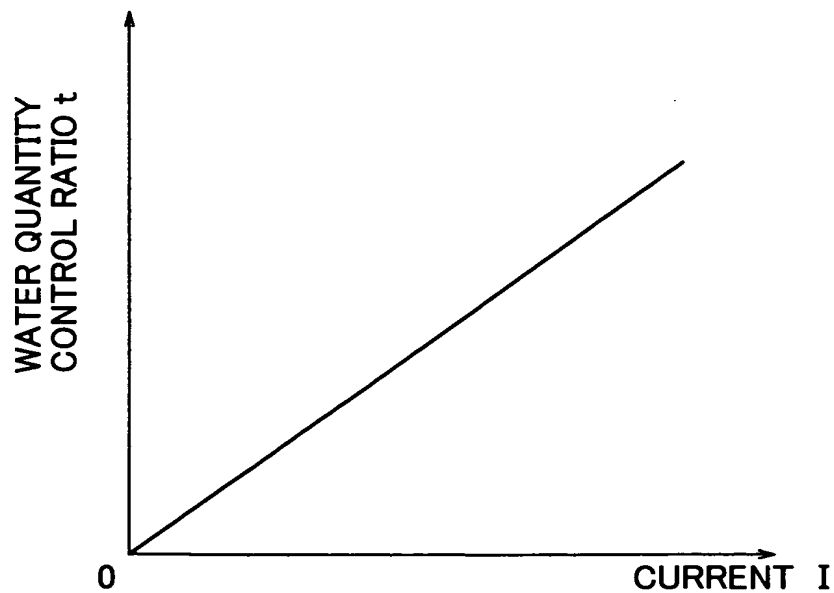


FIG. 6

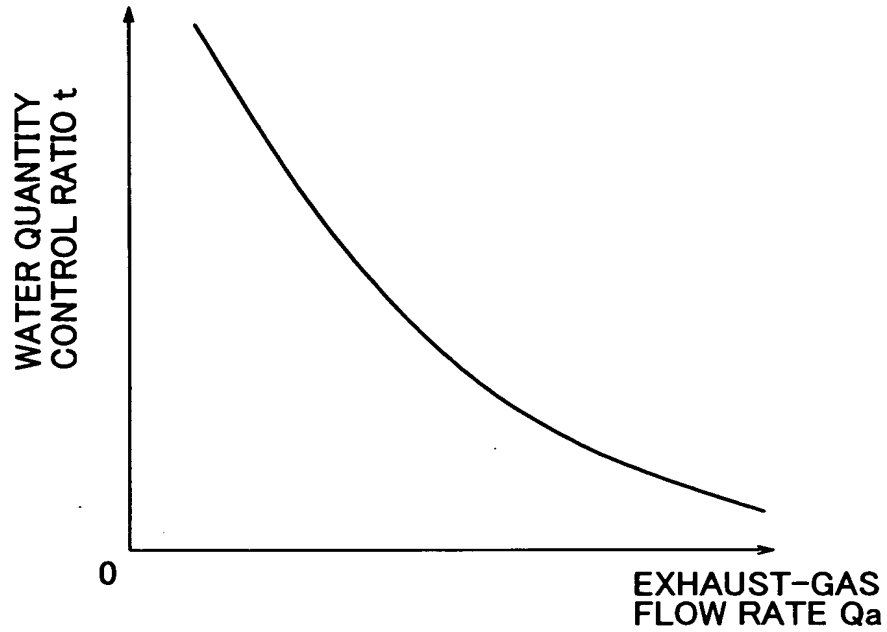


FIG. 7

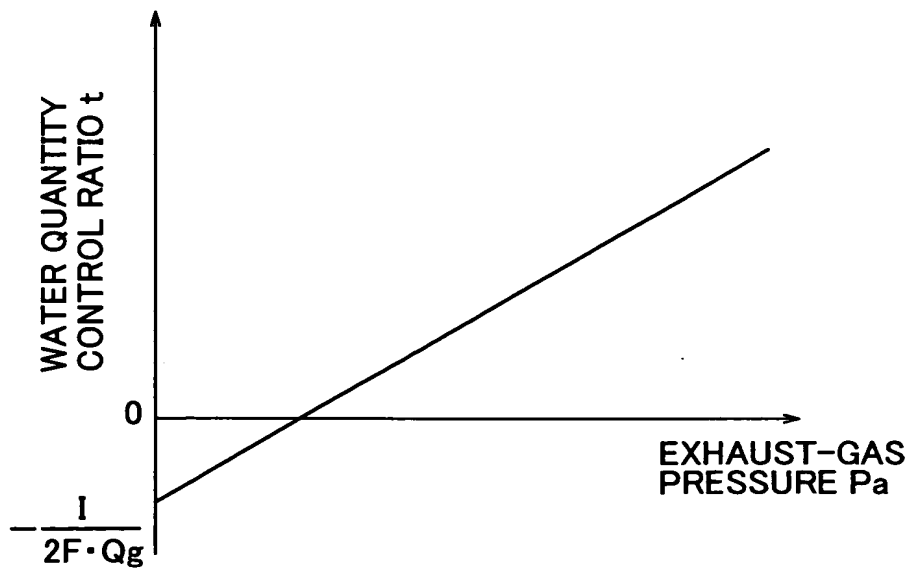


FIG. 8

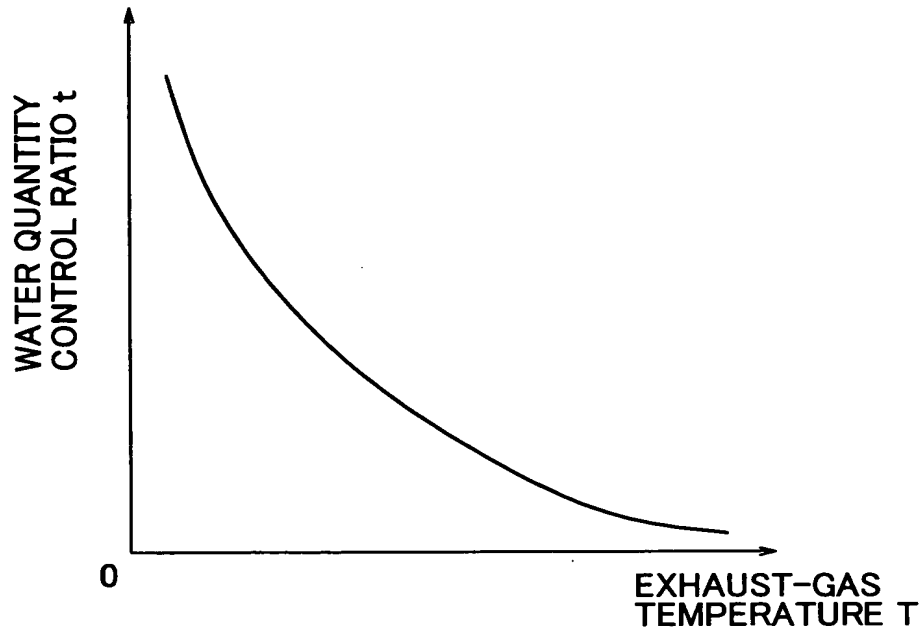
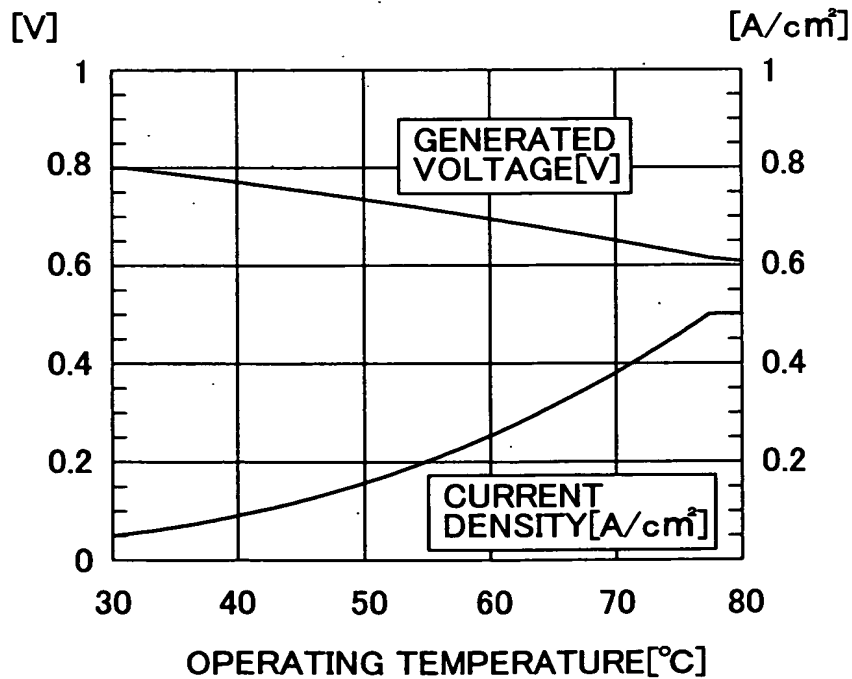


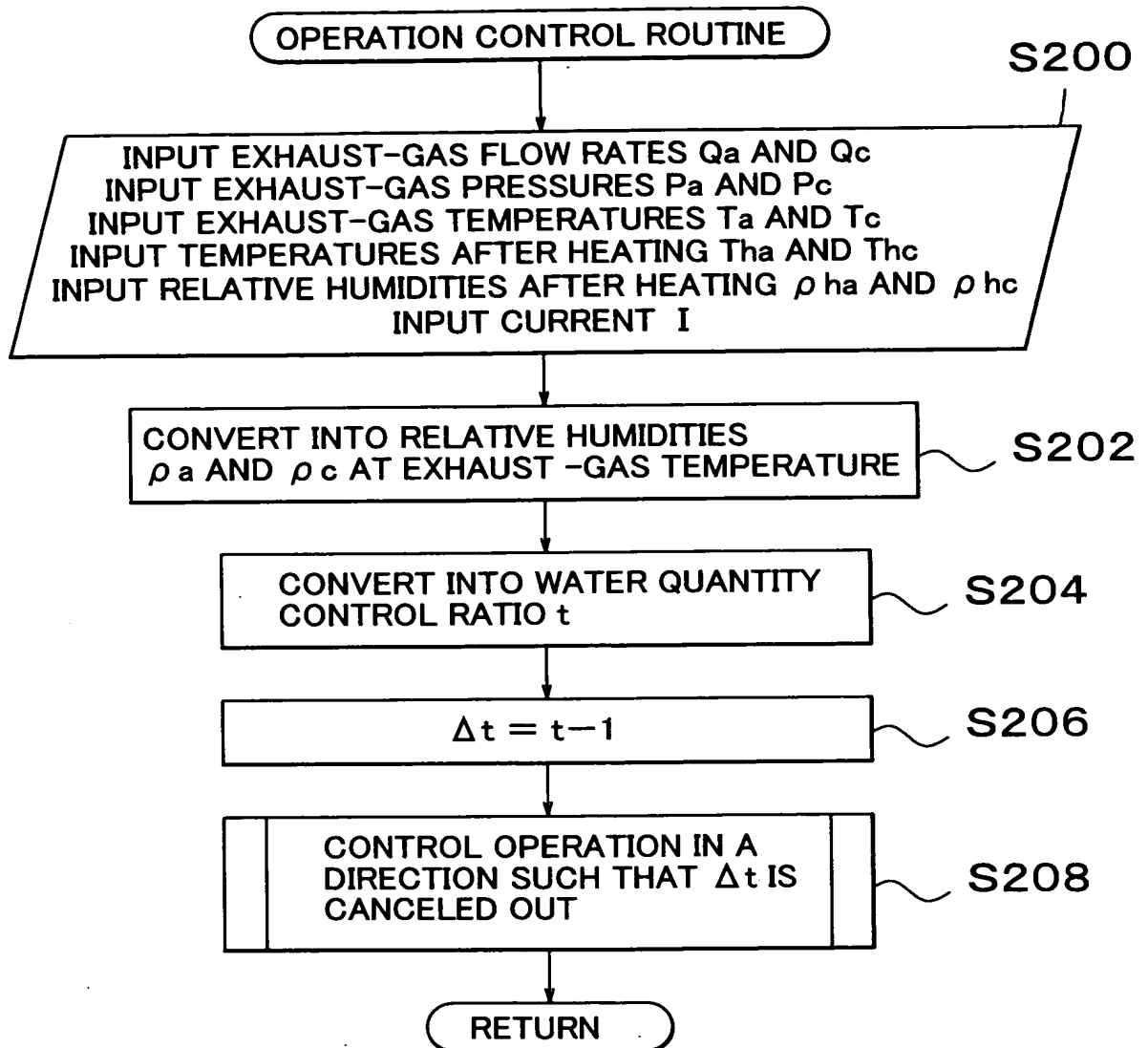
FIG. 9



# FIG. 10

The diagram illustrates a hydrogen-oxygen fuel cell system and its control architecture. The fuel cell system (FIG. 10) includes a hydrogen supply source (22) and an oxygen supply source (24). Hydrogen gas flows from the source (22) through a valve (26) and a flow restrictor (26a) to the anode (30). Oxygen gas flows from the source (24) through a valve (27) and a flow restrictor (27a) to the cathode (32). The anode (30) and cathode (32) are separated by an electrolyte (34). The anode (30) is connected to a heat exchanger (46) and a pump (44). The heat exchanger (46) is connected to a water reservoir (42). The pump (44) draws water from the reservoir (42) and pumps it to the anode (30). The fuel cell system (30, 32, 34) is connected to a current controller (52) and a load (54). The current controller (52) is connected to an ammeter (56). The control system (FIG. 20B) includes a CPU (62), ROM (64), and RAM (66). The CPU (62) is connected to an indicator (90). The control system (60) is connected to the fuel cell system (30, 32, 34) and the current controller (52) via dashed lines, indicating control signals. The control system (60) also receives input from a temperature gauge (78) and a hygrometer (79) connected to the anode (30), and from a flow rate meter (84), pressure gauge (86), and temperature gauge (88) connected to the cathode (32). The control system (60) also receives input from a temperature gauge (87) and a hygrometer (89) connected to the electrolyte (34). The control system (60) also receives input from a temperature gauge (87) and a hygrometer (89) connected to the electrolyte (34). The control system (60) also receives input from a temperature gauge (87) and a hygrometer (89) connected to the electrolyte (34).

## FIG. 11





# FIG. 12

